## WHAT IS CLAIMED IS:

and

1. An optical signal receiver comprising:

a light receiving element to convert optical signals into electric signals; an amplifier to amplify said electric signals converted from said optical signals;

a bias circuit connected with said light receiving element,

wherein said light receiving element is an avalanche photodiode (APD) and said optical receiver includes an APD characteristic correction unit to correct input and output characteristics of said avalanche photodiode (APD).

- 2. An optical signal receiver according to claim 1, wherein said amplifier comprises a preamplifier and a postamplifier.
- 3. An optical signal receiver according to claim 1, wherein said optical signal receiver further includes a discriminating/reproducing device connected to said amplifier.
- 4. An optical signal receiver according to claim 2, wherein said optical signal receiver further includes a discriminating/reproducing device connected to said amplifier.

- 5. An optical signal receiver according to claim 3, wherein said optical signal receiver further includes a timing producing device to extract a clock component.
- 6. An optical signal receiver according to claim 4, wherein said optical signal receiver further includes a timing producing device to extract a clock component.
- 7. An optical signal receiver according to claim 5, wherein said optical signal receiver further includes a light input signal interrupt detector to detect an interruption of light input and to output an alarm.
- 8. An optical signal receiver according to claim 6, wherein said optical signal receiver further includes a light input signal interrupt detector to detect an interruption of light input and to output an alarm.
- 9. An optical signal receiver comprising: a light receiving element to convert optical signals into electric signals; an amplifier to amplify said electric signals converted from said optical signals; a bias circuit connected with said light receiving element; and a logarithmic converter to monitor a reception intensity of said optical signals; wherein said light receiving element is an avalanche photodiode (APD) and said optical receiver includes an APD characteristic correction unit to correct input and output characteristics of said avalanche photodiode (APD).

- 10. An optical signal receiver according to claim 9, wherein said amplifier comprises a preamplifier and a postamplifier.
- 11. An optical signal receiver according to claim 9, wherein said optical signal receiver further includes a discriminating/reproducing device connected to said amplifier.
- 12. An optical signal receiver according to claim 10, wherein said optical signal receiver further includes a discriminating/reproducing device connected to said amplifier.
- 13. An optical signal receiver according to claim 11, wherein said optical signal receiver further includes a timing producing device to extract a clock component.
- 14. An optical signal receiver according to claim 12, wherein said optical signal receiver further includes a timing producing device to extract a clock component.
- 15. An optical signal receiver according to claim 13, wherein said optical signal receiver further includes a light input signal interrupt detector to detect an interruption of light input and to output an alarm.

16. An optical signal receiver according to claim 14, wherein said optical signal receiver further includes a light input signal interrupt detector to detect an interruption of light input and to output an alarm.